

REMARKS

Favorable reconsideration of this application, as amended, is respectfully requested.

Claims 6, 7, 14 and 15 have been canceled without prejudice or disclaimer to the underlying subject matter. Claim 8 has been amended in response to the Examiner's objection. Claims 4, 5, 10 and 11 have been amended for clarity. Without acceding to the outstanding § 102 rejection, Claims 1, 2, 8, 9 and 13 have been amended to more clearly to recite certain distinctive features of the invention. Applicants respectfully submit that, at least as presently amended, the claims distinguish patentably from the prior art.

Estakhri (US 6,202,138), which is the basis for the outstanding § 102 rejection, discloses non-volatile memory bank 506 having a plurality of M blocks 727, each extending across multiple rows (i.e., rows 0-15) of multiple flash memory chips (i.e., first flash memory chip 670 and second flash memory chip 672). See, e.g., FIG. 7; Col. 8, lines 4-26.

Estakhri fails to teach or suggest a plurality of non-volatile memories having management information used for performing alternation control for substituting a storage area of an access error-related non-volatile memory with another storage area, the alternation control being performed

individually for each non-volatile memory, as recited in independent Claims 1 and 2. Estakhri also fails to teach or suggest a plurality of non-volatile memories having management information used for performing an address substituting process on each of the non-volatile memories when an access error occurs, the address substituting process being performed individually for each non-volatile memory, as recited in independent Claim 13.

Furthermore, Estakhri fails to teach or suggest a control circuit that fetches a plurality of management information from a plurality of non-volatile memories, respectively, and performs an alternation control for substituting a storage area of an access error-related non-volatile memory with another storage area, as recited in independent Claim 8. Moreover, Estakhri fails to teach or suggest a memory controller that fetches first and second management information from respective first and second non-volatile memories, uses said first and second management information in an alternation control of respective first and second non-volatile memories, and substitutes storage areas in the non-volatile memory in which an access error occurs in an alternation control of said first and second non-volatile memories, as recited in independent Claim 9.

Instead, Estakhri identifies defects within logical blocks, spanning multiple rows of multiple flash memories,

rather than identifying defects within a single non-volatile memory. Estakhri's defect flag, stored in defect flag location 756, indicates whether an entire memory block 727, including multiple rows of multiple flash memories, is defective. See, e.g., Col. 9, lines 18-52. Estakhri is therefore exemplary of the technique described at page 2, lines 9-16 in the background section of the present application, and the problem therein discussed.

Claims 1, 2, 8, 9 and 13 thus clearly distinguish patentably from Estakhri as has been explained above. Moreover, none of the remaining references, taken either singly or in combination, is seen to teach or suggest the aforementioned features of Claims 1, 2, 8, 9 and 13.

Accordingly, in view of the amendments presented herein, and for the reasons explained in the preceding remarks, Applicants submit that this application is in condition for allowance.

A Notice of Allowance is respectfully solicited.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account.

If any extension of time is required in connection with the filing of this paper and has not been requested separately, then such extension is hereby requested.

Respectfully submitted,

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Miles & Stockbridge P.C.
1751 Pinnacle Drive, Suite 500
McLean, Virginia 22102-3833
(703) 610-8652

By: 

Mitchell W. Shapiro
Reg. No. 31,568

Adam M. Treiber
Reg. No. 48,000

AMENDMENTS TO THE DRAWINGS

Please replace originally-filed Figs. 7, 10 and 11 with the amended drawing sheets filed herewith. Annotated sheets showing the changes in red are also attached.

FIG.7

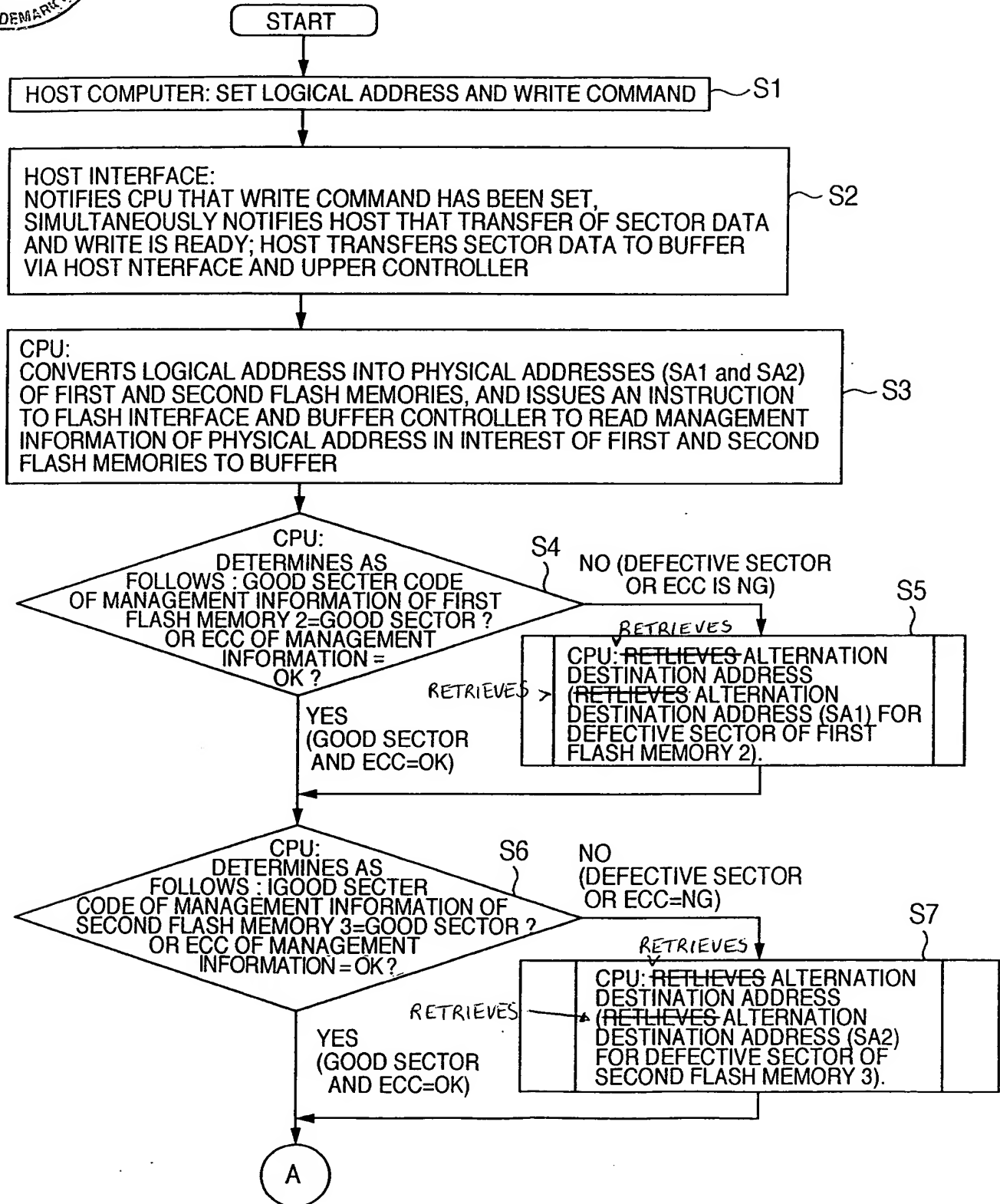


FIG.10

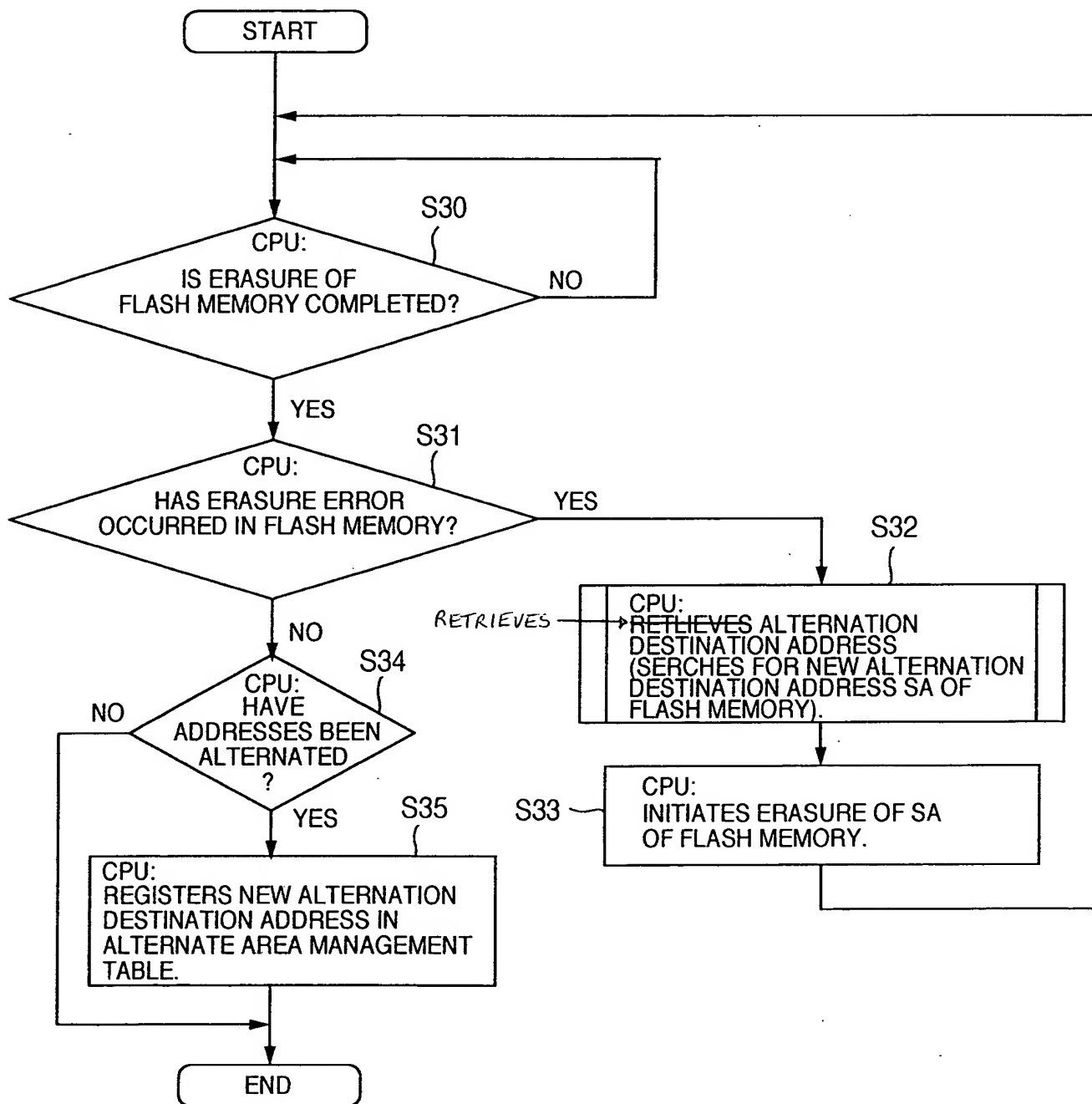


FIG.11

